



# WEST BENGAL STATE COUNCIL OF SCIENCE & TECHNOLOGY

Vigyan Chetana Bhavan, Block - DD, Plot - 26/B, Sector 1, Saltlake, Kolkata - 700064

Email : picwbscst@gmail.com, website :dstwb-council.gov.in

No. 569/WBSCST/F/0244/08 (Pt-II)

Date: 08.12.2016

From:

**Parna Chanda**

**Administrative Officer**

To:

The Assistant Registrar

Geographical Indications

Intellectual Property Office Building

G.S.T Road Guindy, Chennai-600 032

Sub: Examination Report of Banglar Rasogolla (G.I-533), Gobindobhog (G.I-531)  
& Tulaipanji (G.I-530)

Ref: No. GIR/App no.531/ER/2016-17/354 dated October 06, 2016

No. GIR/App no.530/ER/2016-17/353 dated October 06, 2016

No. GIR/App no.533/ER/2016-17/355 dated October 06, 2016

Sir,

In inviting reference to above, I enclose the reply of Examination report of **Banglar Rasogolla (G.I-533), Gobindobhog (G.I-531) & Tulaipanji (G.I-530)**. In this connection, I would like to request you to put the name of **Patent Information Centre**, West Bengal State Council of Science & Technology (WBSCST), DST-GoWB as **Facilitator** in the G.I Certificate.

I would like to request you kindly acknowledge the receipt of the same at the earliest and register the above mentioned State Products.

Thanking you,

Encl:- 1. Reply of Examination Report

2. C.D. - Soft copy of Amended version of G.I. form, Statement of Case & Additional representation along with annexure.

3 - Original Affidavit

Yours faithfully,

**Parna Chanda**



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**Examination Report of "Banglar Rasogolla" (G.I Application No. 533)**

(Issued vide letter no. No. GIR/App.No.533/ER/2016-17/355 Date: 6th October 2016)

**Suggestion1. Government shall not be the applicant and the applicant needs to be replaced as per section 11 of Geographical Indications of Goods (Registration and Protection) Act, 1999**

**Reply 1.** Presently Managing Director of West Bengal State Food Processing & Horticulture Development Corporation Limited (W.B.S.F.P. & H.D.C.L) is the applicant in amended applications for G.I registration of "Banglar Rasogolla". West Bengal State Food Processing & Horticulture Development Corporation Limited (W.B.S.F.P. & H.D.C.L) is an autonomous body registered on 16.04.1986 under Registrar of Companies act and uphold interests of entrepreneurs and artesian in Sweet making industry of the state. The main objective of W.B.S.F.P. & H.D.C.L is to help in promoting the development of Food Processing Industries in West Bengal through constant guidance, hand holding and support to FPI entrepreneurs and artisans.

**Suggestion2. The Consultative Group strongly felt that Association of Producers to be the Applicant and West Bengal State Council of Science & Technology to act as a Facilitator**

**Reply 2:** It is estimated that more than more than 1,00,000 sweetmeat shops in West Bengal are associated with Rasogolla making industries and PashimBanga Mistanna Byabsayee Samity being the concerned association of producer has declared that approx. 2,00,00,000 nos. of Rasogolla is produced per day and the total revenue generated in the state by sale of 'Banglar Rasogolla' per year is approx. Rs. 3600 crores. Thus the grant of a G.I registry in favour of 'Banglar Rasogolla' would help in the trade, export and authentication of uniqueness of the traditional sweet of West Bengal and maintain its quality standards. As majority of producers are involved individually the few sweet makers will not be true representative of the producer group. Moreover, the Producer group is not capable of handling critical issues of G.I registration and rights conferred to the applicant. Thus the stakeholders will not able to implement the G.I concept in the field. W.B.S.F.P. & H.D.C.L is being the applicant with an object to uphold interests of such a huge number of entrepreneurs and artisans in sweet making industry. W.B.S.F.P. & H.D.C.L is being the applicant with an object to uphold interests of such a huge

number of entrepreneurs and artisans in sweet making industry. Bengal will play significant role in implementing the G.I for socioeconomic structure development in post G.I section. They are the authority to handle all unorganized sector of sweet association under one roof. In this regard, of W.B.S.F.P. & H.D.C.L also authorizes Patent Information Centre of West Bengal State Council of Science & Technology, Room No. 302, 3<sup>rd</sup> floor, Vigyan Chetana Bhavan, Block DD, Plot 26/B, Sector-1, Salt Lake, Kolkata-700064, which is governed by Department of Science & Technology, Govt. of West Bengal to act as an authorized body for filing and prosecution of the G.I application of 'Banglar Rasogolla', obtain letters of Geographical Indication from Govt. of India in respect of 'Banglar Rasogolla, carry out all necessary acts, take all steps required there for including appointment of substitutes wherever necessary. W.B.S.F.P. & H.D.C.L also confirmed that all notices, requisitions and communication relating to the application may be sent to such agent at the above mentioned address unless otherwise specified.

**Suggestion 3: The physicochemical parameters (such as fat, proteins, total solids, moisture, acidity & yield) and microbiological parameters (such as SPC, yeast and mould count, coliform count) of BanglarRasogolla along with its texture, viscosity and brix content in syrup to be provided.**

**Reply 3.** Samples ('Banglar Rasogolla') are collected from different shops and are sent to

- 1. West Bengal Public Health Laboratory, Kolkata** for analysis of several physicochemical and microbiological parameters of 'Banglar rasogolla'.
- 2. West Bengal University of Animal and Fishery Science, Kolkata** for analysis of texture and brix content of the sugar syrup.

**Analysis of Physicochemical & Microbiological parameters**

**Sample No:** samples sent to the laboratory were numbered as I, II, III

**Parameters Checked:**

Sl. No.	Physicochemical parameters	Microbiological analysis
1.	Drained weight (% by wt.)	
	<b>Tests on Drained Rasogolla</b>	<b>Tests on Whole Sample</b>
1.	Total Soluble Solid (% by wt)	Total Plate Count (cfu/gm)
2.	Added sugar (as sucrose) (% by wt)	Yeast & Mould (cfu/gm)
3.	Total fat (% by wt)	Salmonella sp & Shigella sp (25 gm)
4.	Total Carbohydrate (% by wt)	Escherichia coli (1 gm)
5.	Total Protein (% by wt)	Staphylococcus aureus (1 gm)
6.	Casein (% by wt)	Coliform Count (1 gm)
7.	Energy (kcal per 100gm)	
8.	Calcium as Ca (mg/100gm)	
9.	Total Starch (% by wt)	
10.	Extraneous Colouring matter	
	<b>Tests on Syrup</b>	
1.	pH	
2.	Specific Gravity at 22°C	
3.	Total sugar (as sucrose) (% by wt)	

**Experimental Findings:**

1. Experimental data provides detailed nutritional information of Banglar Rasogolla in terms of energy value, carbohydrate, protein, fat etc.
2. pH of the sugar syrup being an important indicator of product quality is analysed.
3. As per the reports, no starch is found being added to the chhana as adulterant which ensures the unique quality of Banglar Rasogolla.
4. No extraneous colouring matter is found.
5. The sucrose content of sugar syrup is found to be within the range of 34-45 % by weight. (Average 40 %by wt.)
6. Total Plate Count (cfu/gm) of all the samples are found to be within the range of 12000-23000 cfu/gm (average 16300 cfu/gm) that is quite below that of the standard specified (NMT 50000/gm). Moreover no coliform organisms are found in samples which support the presence of probiotic bacteria in the sweet that are beneficial for health.

**Chemical Analysis Reports are enclosed [Annexure No: C]**

**Analysis of Texture and Brix content of the Syrup**

**Texture analysis:**

**Sample No: IVA, IVB, IVC**

**Parameters Checked:**

<b>Hardness (g)</b>	Hardness is the force, necessary to produce a given deformation to a product (rasogolla)
<b>Cohesiveness</b>	The cohesiveness is defined as the extent to which rasogolla may be deformed before it ruptures

Springiness	Springiness is the rate and extent to which a deformed material goes back to initial condition after deforming force is removed
Chewiness (g)	chewiness is defined as the energy required to masticate a solid food product to a state ready for swallowing

**Experimental finding:**

1. 'Banglar Rasogolla' (all 3 samples sent) are found to have less hardness compared to that of the rasogolla of other states. That signifies better softness.
2. The cohesiveness is also more in Banglar Rasogolla that signifies smooth characteristics.
3. Chewiness of samples IVA, IVB, IVC are much lower within the range of 400-850gm as compared to the samples of other state, therefore suggesting a soft texture and better chewiness of 'Banglar Rasogolla'.

[Report Annexed via Annexure No-D]

**Brix Content of Sugar Syrup**

**Sample No: I, II, III, IV**

**Experimental Finding:**

Degrees Brix ( $^{\circ}\text{Bx}$ ) is the measuring unit of the sugar content of an aqueous solution. One degree Brix is 1 gram of sucrose in 100 grams of solution and represents the strength of the solution as percentage by mass.

The Brix value of the sugar syrup of 'Banglar Rasogolla' is measured and it is found to be within a range of 29-40. Therefore it can be said the sugar concentration of syrup of 'Banglar Rasogolla' is maintained within the range of 30%-40% slightly more or less which is sufficient to make the product albeit sweet.

[Report Annexed via Annexure No-E]

**Suggestion 4. The logo of GI Product to be submitted for better identification and Protection of GI Rights.**

**Reply 4. Logo annexed [Annexure B]**

**Suggestion 5. The specification of the GI Product to be clearly redrafted.**

**Reply 5. 'Banglar Rasogolla' is acquired with some unique characters that has been specified through organoleptic as well as several physical & physicochemical properties analysis-**

- 'Banglar Rasogolla' is a syrupy dessert made up of pure chhana dumplings dipped into light sugar syrup
- Chhana is the sole ingredient of 'Banglar Rasogolla' which is obtained from curding of pure milk.
- Starch is not used while preparing the chhana dumplings.
- The dumplings are made spherical in shape to give a ball like structure. The size of Rasogolla varies from 3.7-6.2 cm approx.
- The colour of the sweet is usually white/off white
- Spongy character of 'Banglar Rasogolla' has made the product unique from rest
- By means of texture, 'Banglar Rasogolla' is soft, smooth and have better cohesiveness
- Chewiness is much less, within a range of 400-850 gm.
- Average moisture content of the sweet is 50%
- Sugar syrup is light in consistency and somewhat transparent in nature, the Concentration of sugar syrup is usually maintained within a range of 30-40%
- The pH of the sugar syrup is usually within the range of 5.5-6.2
- No extraneous coloring matter is added
- °Brix range of the sugar syrup is found being within 30-40



**Suggestion 6. The Method of Production to be redrafted with common standards to maintain quality alongwith general hygienic & sanitation practices adopted by the producers in the GI Area to be provided which should be in compliance with the relevant provisions of State and Central Acts.**

**Reply 6.**

**Method of Production of 'Banglar Rasogolla'**

**Ingredients: Principal ingredients are-**

- Milk
- Chhana
- Sugar
- Water

**Method:**

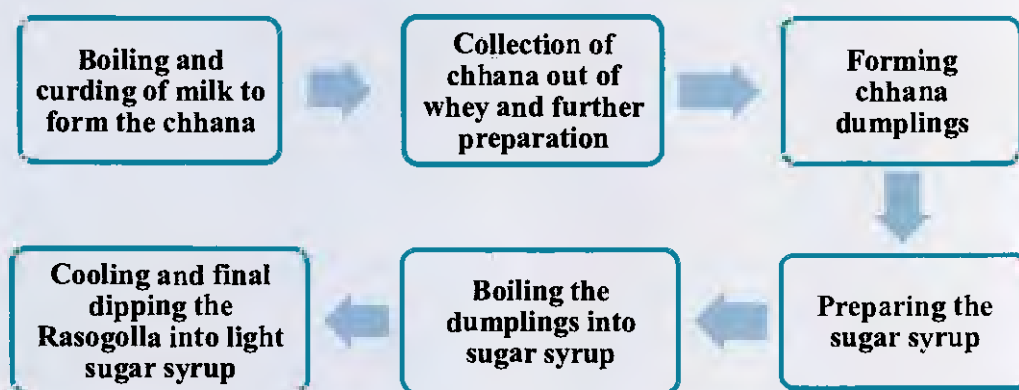
The method of Rasogolla preparation mainly include following steps-

- **Boiling and curding of milk to form the chhana-** Fresh milk is the primary ingredient of Rasogolla, which is used to make the chhana upon curding either by application of lemon juice or perused whey water etc. to it during boiling.
- **Collection of chhana out of whey and further preparation-** after the milk becomes curdled; chhana is being separated out of whey and tied in clean muslin cloth. **Muslin tied hot chhana is soaked into cold water tank for hours to make it cold, this special treatment of chhana makes it smooth and delicate and thus is an indispensable part of traditional methodology of 'Banglar Rasogolla' preparation.** After cooling the chhana is pressed hard as possible to drain out excess water out of it leaving the chhana with only 50% moisture out of the whole.removing and pressing to eliminate water)
- **Forming chhana dumplings-** kneading the chhana profoundly by heal of palm is the basic step which demands for excellent human skill and the texture as well as the mouth feel of the final product depends on this particular step to a great extent. No starch is

added with chhana during this time in conventional method of 'Banglar Rasogolla' preparation. After adequate kneading small spherical dumplings are made out of this chhana. The balls weigh usually 10 gm each.

- **Preparing the sugar syrup-** Sugar syrup is first prepared by dissolving sugar in water and the solution is boiled until all the sugar gets fully dissolved. The concentration of the syrup should be light. (Usually within a range of 30-40%). **Conventionally a small amount of milk is added to clarify the syrup from impurities. Constant scrapping out the impurities from the top of boiling sugar syrup is one of the efficient human practices making the syrup light, clean and somewhat transparent in nature.**
- **Boiling the dumplings into sugar syrup-** The chhana balls are dropped into the boiling syrup. After a certain time the balls will gather together and settle upwards. **Cold water is added to make the syrup lighter and keeping the concentration of the syrup uniform throughout.** The chhana balls slowly enlarge in size after around 15 min. of boiling.
- **Cooling and final dipping the Rasogolla into light sugar syrup-** Once the desired texture is achieved the Rosogollas are removed and further dipped into another sugar syrup, separately prepared containing 35-40% sugar in it.

**Flow Chart of the Preparatory Steps:**



**Pictorial Diagram of Preparatory Steps:**

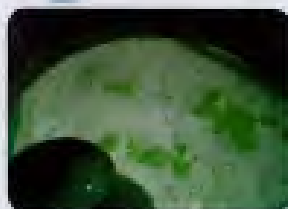
**Boiling & curdling of milk**



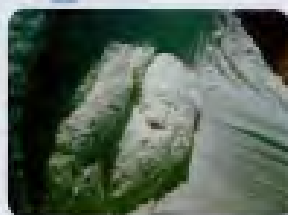
**Boiling the balls in sugar syrup**



**Final dipping in syrup**



**Preparing the chhana balls**



**Separated Chhana is tied in muslin cloth**

**Dipping muslin tied chhana into cold water**

**Suggestion 7.** The uniqueness of the GI product “BanglarRasogolla” to be furnished, along with comparative analysis report with other Rasogolla to be provided.

**Reply 7.** Uniqueness is something, which differentiate the quality of a particular product from the rest and makes it worth to be said special as well as one & only. ‘Banglar Rasogolla’ is one of such instances that acquired a worldwide fame by means of its unique characters in terms of organoleptic, physical as well as physicochemical characteristics.

Laboratory experiments are performed taking the sample of ‘Banglar Rasogolla’ along with other Rasogolla from different places.



The comparative analysis has covered-



1. Organoleptic features analysis
2. Texture analysis and Brix Content measurement of sugar syrup
3. Physicochemical Properties Analysis
4. Microbiological Analysis





**Experimental Finding:**

**Sampling:** Chemical Analysis was prepared on the basis of the samples collected from three shops of Bengal (designated as sample IV A, IV B and IVC for texture analysis dated 08.09.16 and sample I-IV for °Brix analysis dated 04.11.2016 from **West Bengal University of Animal and Fishery Science, Kolkata**, Sample no. I-III dated 25.11.16 for physicochemical analysis from **West Bengal Public Health Laboratory, Kolkata**) and average of three samples of another State (designated as sample I to III for Texture analysis received on 08.09.16 and sample I for °Brix analysis received on 23.11.16 from **West Bengal University of Animal and Fishery Science, Kolkata**, and sample no. V dated 01.12.2016 for Physicochemical analysis **West Bengal Public Health Laboratory, Kolkata**)

**Comparative Analysis Report:**

Analytical area	Parameters	'Banglar Rasogolla'	Other Rasogolla
Organoleptic features analysis	<ul style="list-style-type: none"> <li>• Colour</li> </ul>	Colour of Banglar Rasogolla is usually white/off white  	Colour of rasogolla of other state varies from Brown to different analogous shades  

	<ul style="list-style-type: none"> <li>• <b>MouthFeel Characteristics</b></li> </ul>	<ul style="list-style-type: none"> <li>• Smooth &amp; delicate mouthfeel is the basic characteristics of Banglar Rasogolla.</li> <li>• Spongy feature makes the product unique among all.</li> </ul> 	<ul style="list-style-type: none"> <li>• Other Rasogolla is found to have rough &amp; chewy features.</li> <li>• Absolutely Lacking Spongy Character</li> </ul> 
<p><b>Texture analysis</b></p> <p>[As per the Texture analysis report enclosed via Annexure No-D]</p>	<ul style="list-style-type: none"> <li>• <b>Hardness</b></li> </ul> <p>[Hardness is the force, necessary to produce a given deformation to a product (rasogolla)]</p>	<p>Hardness of 'Banglar Rasogolla' is experimentally proven to be much lower (half) compared to the samples collected from other states</p>	<p>Rasogollas from other state are found to have more hardness that signifies inferior softness of the product</p>
	<ul style="list-style-type: none"> <li>• <b>Cohesiveness</b></li> </ul> <p>[The cohesiveness is defined as the extent to which rasogolla may be deformed before it ruptures]</p>	<p>Cohesiveness of 'Banglar Rasogolla' are found to be more, signifying more soft and smooth texture</p>	<p>The Rasogolla of other states are with less cohesiveness</p>
	<ul style="list-style-type: none"> <li>• <b>Chewiness</b></li> </ul> <p>[chewiness is defined as the energy required to masticate a solid food product to a state ready for swallowing]</p>	<p>Chewiness of 'Banglar Rasogolla' is much lower, within the range of 400-850g as compared to the samples from other states.</p>	<p>On contrary, the Rasogolla samples collected from other state are found to have very high figures of 6511.91g, 1458.99g, 1491.99g etc. that suggests hard rasogolla requires more</p>

			chewing.
<p><b>Brix Content of Sugar Syrup</b></p> <p>[As per report Annexed, Annexure-E]</p>		<p>Sugar syrup of Banglar Rasogolla is light</p> <p><b>Brix Content of sugar syrup is found to be within the range of 29-40.</b></p> <p>Therefore it can be said the sugar concentration of syrup of 'Banglar Rasogolla' is maintained within the range of 30%-40% slightly more or less which is sufficient to make the product albeit sweet.</p> <p>The appearance is somewhat transparent</p> 	<p>In others the syrup is made highly concentrated</p> <p><b>°Brix value of the test samples is found to be 75.5.</b></p> <p><b>That clearly signifies the high concentration of sugar syrup (&gt;75%) used in Rasogolla of other districts.</b></p> <p>The syrup is with hazy or opaque appearance</p> 
<p><b>Physicochemical Properties Analysis</b></p> <p>[As per report Annexed, Annexure-C]</p>	<ul style="list-style-type: none"> <li><b>Use of Starch</b></li> </ul>	<p>No starch is used during the preparation of 'Banglar Rasogolla'</p> 	<p>Starch is found being present in rasogolla of other state.</p> <p>Total starch is measured to be 2.34% by weight.</p> 
	<ul style="list-style-type: none"> <li><b>Moisture</b></li> </ul>	<p>Average Moisture Content is about 50%</p>	<p>Moisture Content is about 55.49%</p>

	<ul style="list-style-type: none"> <li>• <b>Total Soluble Solid</b> (% by wt.)</li> </ul>	'Banglar Rasogolla' are found to have 30.64 % total soluble solid by weight in average	Here, the total soluble solid is found being 27.88%
	<ul style="list-style-type: none"> <li>• <b>Total Protein</b> (%by wt.)</li> </ul>	Average protein content is about 7.56	Total Protein content is about 6.35
	<ul style="list-style-type: none"> <li>• <b>Casein</b> (%by wt.)</li> </ul>	Average casein content is found to be 7.08  <b>In relation to total protein content, casein content is quite significant signifying the purity of chhana used</b>	Casein content is found being 5.43  <b>Casein content is not satisfactory as the amount of Total protein content concerned, thereby signifies presence of impurities (may be the starch)</b>
	<ul style="list-style-type: none"> <li>• <b>Calcium</b> (mg/100gm)</li> </ul>	Average calcium content of 'Banglar Rasogolla' is found being 117.33 mg/100gm	Calcium content is found being 108.00 mg/100gm
<b>Microbiological Analysis</b>	<ul style="list-style-type: none"> <li>• <b>Total Plate Count</b> (cfu/gm)</li> </ul>	On an average it is found being within a range of 12000-23000 cfu/gm (average 16300cfu/m) that is quite below that of the standard specified (NMT 50000/gm).  Absence of coliform signifies presence of significant probiotic organisms that are natural in milk based sweets.	Total Plate Count of other rasogolla is found less, about 6500 cfu/gm with the presence of coliform species.  The probiotic organisms are assumed being less in amount
	<ul style="list-style-type: none"> <li>• <b>Yeast &amp; Mould</b> (cfu/gm)</li> </ul>	In most of the samples the test result is negative  Only one being exception is found having 12 cfu/gm	Absent
	<ul style="list-style-type: none"> <li>• <b>Salmonella sp and Shigella sp</b> (25gm)</li> </ul>	Absent	Pathogenic organisms Present At an extent of 23/25gm sample analyzed

	<ul style="list-style-type: none"> <li>• <b>Coliform Count (1gm)</b></li> </ul>	Absent	The test report gave a value of 110 coliform count per 1 gm sample analyzed, where the standard value should be Not More Than 50
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**Suggestion 8. Demarcation of GI Area of production of Banglar Rasogolla:** To provide two copies (One original & One certified preferably in A4 or A3 size) of the map of the territory, region or locality demarcating Geographical area of production in which the goods relating to Geographical Indication are being produced or manufactured issued from a competent statutory authority giving details of the longitude and latitude of the production area.

**Reply 8:**

Rasogolla is produced in all over West Bengal excluding Darjeeling District.

According to the Declaration of PashimBanga Mistanna Byabsayee Samity nearly 1, 00,000 shop keepers are attached to its manufacturing in all over West Bengal.

Total production of Rasogolla per day is approximately 20000000.

Latitude and Longitude of the West Bengal of India in other units: 22.5667° N, 88.3667° E

[Map Enclosed via Annexure- F]

**Suggestion 9: Upon Registration the Applicant has to comply with the following Post Registration conditions:**

- ❖ To ensure for registration of producers of Banglar Rasogolla as Authorised Users.
- ❖ Further, for registration of Authorised User a condition has been placed that "Every Application for Registration of Authorised User shall be supported by an "No Objection Certificate" from either the Registered Proprietor or O/o of Directorate of Food Processing Industries, Department of Food Processing



Industries and Horticulture, Government of West Bengal" stating the following information of the proposed Authorised User:

- He is a producer within the GI Area of Production;
  - He complies with production & quality standards of GI Product.
- ❖ To submit a report within One (1) Year to the Registry, regarding the impact of GI Registration and means of propaganda used for promotion of GI.

**Reply 9.** The Applicant will comply by the above suggestions Post Registration. In case of Post Registration condition, Managing Director of West Bengal State Food Processing & Horticulture Development Corporation Limited (W.B.S.F.P. & H.D.C.L) / Director of Food Processing Industries- GoWB will give the "No Objection Certificate" to the producer within the GI Area of Production of the GI product after getting the production & quality standards of the product tested.

**Suggestion 10.** The Applicant has to revise the application in respect of the above requirements and resubmit an amended application.

**Reply 10.** As per the discussion in last consultative group meeting and the requirements sent, necessary steps were taken, Comparative chemical analysis of different samples were done in renowned laboratories. Amendment is done in application and thus revised application has been made in terms of GI application form, Statement of Case and Additional Representation. Duly authorized Application will be sent via Annexure No- A

## Logo of Banglar Rasogolla



ONE IS NOT ENOUGH



# WEST BENGAL STATE COUNCIL OF SCIENCE & TECHNOLOGY

Vigyan Chetana Bhavan, Block - DD, Plot - 26/B, Sector 1, Saltlake, Kolkata - 700064

Email : picwbcsst@gmail.com, website : dstwb-council.gov.in

No. 340/WBSCST/F/0602/16

Date: 04/11/2016.

From:

**Dr. Mahuya Hom Choudhury**

Scientist-C

&

Nodal Officer

Patent Information Centre (PIC)

To:

**The Public Analyst**

Food and Water

West Bengal Public Health Laboratory

Department of Health and Family Welfare

Govt. of West Bengal

Sub: Chemical Analysis for G.I registration of Rasogolla

Ref: Our communication letter no. 406 Dated 24.08.2016

Sir,

With reference to our previous communication, I am directed to send herewith the samples of different shops of West Bengal and other states for G.I Registration of "Banglar Rasogolla".

As per observation of G.I Registry, GoI, we have to send Chemical analysis report to G.I Office Chennai for the Rasogolla samples collected from different shops of West Bengal and other states. The comparative analysis of Banglar Rasogolla with the Rasogolla of other states need to be produced before the G.I registry for Final Registration. I would like to request you to send Chemical Analysis report with a comparative analysis of samples numbered as levelled on sample the following characteristic for Final Registration of "Banglar Rasogolla".

13. Moisture
14. Total soluble solid
15. Added sugar (as sucrose)
16. Total carbohydrate
17. Total protein
18. Casein
19. Total fat
20. Energy
21. Total sugar (sucrose) in syrup
22. Viscosity of syrup
23. Acidity
24. Yield

Sample - I - IV - PIC,



Received  
3.00 P.M.  
R. e  
4.11.16

Contd... p/2



## WEST BENGAL STATE COUNCIL OF SCIENCE & TECHNOLOGY

Vigyan Chetana Bhavan, Block - DD, Plot - 26/B, Sector 1, Saltlake, Kolkata - 700064

Email : [picwbscst@gmail.com](mailto:picwbscst@gmail.com), website : [dstwb-council.gov.in](http://dstwb-council.gov.in)

-2-

### Microbiological Parameters:

4. SPC
5. Yeast & Mould count
6. Coliform count

I would like to request you to send us the analysis report at the earliest. Charge required (if any) may be communicated to us by raising bill to the abovementioned address.

Thanking you,

Yours faithfully,

Mahuya Hom Choudhury

Amount 89  
to be 500% to be  
deposit at the time  
of Report



# WEST BENGAL STATE COUNCIL OF SCIENCE & TECHNOLOGY

Vigyan Chetana Bhavan, Block - DD, Plot - 26/B, Sector 1, Saltlake, Kolkata - 700064

Email : picwbscst@gmail.com, website :dstwb-council.gov.in

No. 538 /WBCSCT/F/0602/16

Date: 23.11.16

From:

**Dr. Mahuya Hom Choudhury**

Scientist-C

&

**Nodal Officer**

**Patent Information Centre**

To:

**The Public Analyst**

**Food and Water**

**West Bengal Public Health Laboratory**

**Department of Health and Family Welfare**

**Govt. of West Bengal**

Sub: Chemical Analysis for G.I registration of Rasogolla

Ref: Our communication letter no. 540/WBCSCT/F/0602/16 Dated 04.11.2016

Sir,

With reference to our previous communication, I am directed to send herewith the samples of different shops of West Bengal and other states for G.I Registration of "Banglar Rasogolla".

As per observation of G.I Registry, Govt. we have to send Chemical analysis report to G.I Office Chennai for the Rasogolla samples collected from different shops of West Bengal and other states. The comparative analysis of Banglar Rasogolla with the Rasogolla of other states need to be produced before the G.I registry for Final Registration. I would like to request you to send Chemical Analysis report of samples numbered as levelled on sample (v) of the following characteristics for Final Registration of "Banglar Rasogolla".

1. Moisture
2. Total soluble solid
3. Added sugar (as sucrose)
4. Total carbohydrate
5. Total protein
6. Casein
7. Total fat
8. Energy
9. Test for Starch
10. Total sugar (sucrose) in syrup
11. Viscosity of syrup
12. Acidity
13. Yield

**Microbiological Parameters:**

1. SPC
2. Yeast & Mould count
3. Coliform count

I would like to request you to send us the analysis report at the earliest. Charge required (if any) may be communicated to us by raising bill to the abovementioned address.

Thanking you.



Yours faithfully,

  
Mahuya Hom Choudhury

**Government of West Bengal**  
**West Bengal Public Health Laboratory**  
**Office of the Public Analyst (Food and Water)**  
2, Convent, Lane, Kolkata-15

Memo No. PHL/2676 /

Dated : Kolkata 25/11/16

To

Dr. Mahuya Hom Choudhury  
 Scientist-C  
 & Nodal Officer,  
 Vigyan Chetana Bhavan, Block-DD, Plot-26/B  
 Sector 1, Salt Lake  
 Kolkata- 700064

Subject : Test report of Rasogolla

Reference : Letter / Memo No. 540/WBSCST/F/0602/16 Dated 4/11/16

With reference to Letter / Memo cited above I am to furnish herewith the analysis Report No. 333-336/16-17 dt. 24/11/16 of Rasogolla... receipt of which may please be acknowledged.

*[Signature]*  
 24/11/16  
 Public Analyst  
 (Food and Water)

Govt. of West Bengal  
 Public Analyst (Food and Water)  
 West Bengal Public Health Laboratory  
 Unit of Food & W.  
 Govt. of West Bengal

Encl : As above



**Reference: 540/WBSCST/F/0602/16 Dated 04/11/16**  
**Test Reports of Rasogolla**

**Report No. 333/16-17 dt. 24/11/2016**

Certify that I **Arup Dattagupta** duly appointed as Food Analyst under the provision of the Food Safety & Standard Act 2006 for the State of West Bengal has received one sample of **Rasogolla** –bearing Sample No. I from **Dr. Mahuya Hom Choudhury, Scientist-C & Nodal Officer, Patent Information Centre**, on 04/11/2016 vide memo 540/WBSCST/F/0602/16 Dated 04/11/16 for analysis.

The result of analysis is as follows:

**Sample Description: Rasogolla ; Sample no.: I**

**Result of Analysis:**

Physical appearance: White, spherical, sponzy substance sent in a hermetically sealed tin container, declared as Rasogolla.

Sl. No.	Quality parameters	Result	Microbiological Requirement [Table -2 of App. B of FSS (FPS & FA) reg. 2011 for Edible casein ]
1.	Drained weight % by wt.	45.74	-----
<b>Tests on Drained Rossgolla</b>			
2	Total Soluble Solid % by wt	31.10	-----
3	Added sugar(as sucrose ) % by wt	35.46	-----
4	Total fat % by wt	5.87	-----
5	Total Carbohydrate % by wt	35.50	-----
6	Total Protein % by wt	6.96	-----
7	Casein % by wt	6.49	-----
8	Calcium (mg/100 gm sample)	110	-----
9	Starch	Not found	-----
10	Total Starch % by wt	-----	-----
11	Extraneous colouring matter	Not found	-----
12	Moisture % by wt	50.96	-----
<b>Tests on Syrup</b>			
13	pH	5.94	-----
14	Specific Gravity at 22°C	1.1843	-----
15	Sucrose in syrup (% by wt)	40.80	-----

**Reference: 540/WBSCST/F/0602/16 Dated 04/11/16**  
**Test Reports of Rasogolla**

<b>Microbiological Analysis (on whole sample)</b>				
16	Total Plate count	(cfu/gm)	12300	NMT50000/g
17	Yeast & Mould	(cfu/gm)	Absent	-----
18	<i>Salmonella sp &amp; Shigella sp</i>	(25gm)	Absent	Absent
19	<i>Escherichia coli</i>	(1gm)	Absent	Absent
20	<i>Staphylococcus aureus</i>	(1gm)	Absent	LT10
21	Coliform Count	(1gm)	Absent	NMT50

**Nutritional Information ( per 100 gm drained sample ) (approx)**

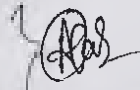
Energy	228.68 Kcal
Protein	6.96 gms
Fat	5.87 gms
Carbohydrates	35.50 gms

Signed this 24<sup>th</sup> day of November, 2016

Address: West Bengal Public Health Laboratory  
2, Convent Lane, Kolkata -15

Prepared by:

Checked by:



(Sd/-) Food Analyst.

Public Analyst (Food & Water)  
West Bengal Public Health Laboratory  
Dept. of Health & F. W  
Govt. of West Bengal

N.B. the results are only applicable for the submitted samples. Endorsement of the products is neither inferred nor implied.

**333/16-17 dt. 24/11/2016**





**Reference: 540/WBSCST/F/0602/16 Dated 04/11/16**  
**Test Reports of Rosogolla**

**Report No. 334/16-17 dt. 24/11/2016**

Certify that I **Arup Dattagupta** duly appointed as Food Analyst under the provision of the Food Safety & Standard Act 2006 for the State of West Bengal has received one sample of **Rasogolla** bearing Sample No. II from **Dr. Mahuya Hom Choudhury, Scientist-C & Nodal Officer, Patent Information Centre**, on 04/11/2016 vide memo 540/WBSCST/F/0602/16 Dated 04/11/16 for analysis.

The result of analysis is as follows:

**Sample Description: Rasogolla : Sample no.: II**

**Result of Analysis:**

Physical appearance: White, Spherical shaped, sponzy substance sent in a sealed plastic container, declared as Rasogolla.

Sl. No.	Quality parameters	Result	Microbiological Requirement [Table -2 of App. B of FSS (FSS & FA) reg. 2011 for Edible casein ]
1.	Drained weight % by wt.	45.75	-----
<b>Tests on Drained Rosogolla</b>			
2	Total Soluble Solid % by wt	33.48	-----
3	Added sugar(as sucrose ) % by wt	38.83	-----
4	Total fat % by wt	6.47	-----
5	Total Carbohydrate % by wt	39.80	-----
6	Total Protein % by wt	7.80	-----
7	Casein % by wt	7.57	-----
8	Calcium (mg/100 gm sample)	120	-----
9	Starch	Not found	-----
10	Total Starch % by wt	-----	-----
11	Extraneous colouring matter	Not found	-----
12	Moisture % by wt	45.09	-----
<b>Tests on Syrup</b>			
13	pH	6.14	-----
14	Specific Gravity at 22°C	1.2039	-----
15	Sucrose in syrup (% by wt)	44.4	-----

Government of West Bengal  
Office of the Public Analyst (Food & Water)  
West Bengal Public Health Laboratory  
2, Convent Lane, Kolkata – 15  
Phone: – 033-23299225, FAX: – 033-23297289

**Reference: 540/WBSCST/F/0602/16 Dated 04/11/16**  
**Test Reports of Roscogolla**


<b>Microbiological Analysis (on whole sample)</b>				
16	Total Plate count	(cfu/gm)	23000	NMT50000/g
17	Yeast & Mould	(cfu/gm)	12	---
18	<i>Salmonella sp &amp; Shigella sp</i>	(25gm)	Absent	Absent
19	<i>Escherichia coli</i>	(1gm)	04	Absent
20	<i>Staphylococcus aureus</i>	(1gm)	Absent	LT10
21	Coliform Count	(1gm)	Absent	NMT50

**Nutritional Information ( per 100 gm drained sample ) (approx)**

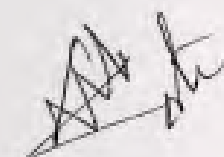
Energy	255.33 Kcal
Protein	7.80 gms
Fat	6.47 gms
Carbohydrates	39.80 gms

Signed this 24<sup>th</sup> day of November, 2016

Address: West Bengal Public Health Laboratory  
2, Convent Lane, Kolkata -15

Prepared by: 

Checked by:

  
(Sd/-) Food Analyst.

Public Analyst (Food & Water)  
West Bengal Public Health Laboratory  
Deptt. of Health & F. W.  
Govt. of West Bengal

**N.B.** the results are only applicable for the submitted samples. Endorsement of the products is neither inferred nor implied.

**334/16-17 dt. 24/11/2016**



**Reference: 540/WBSCST/F/0602/16 Dated 04/11/16**  
**Test Reports of Rosogolla**

**Report No. 335/16-17 dt. 24/11/2016**

Certify that I **Arup Dattagupta** duly appointed as Food Analyst under the provision of the Food Safety & Standard Act 2006 for the State of West Bengal has received one sample of **Rasogolla**, bearing **Sample No. III** from **Dr. Mahuya Hom Choudhury, Scientist-C & Nodal Officer, Patent Information Centre**, on 04/11/2016 vide memo 540/WBSCST/F/0602/16 Dated 04/11/16 for analysis.

The result of analysis is as follows:

Sample Description: **Rasogolla** : Sample no.: **III**

**Result of Analysis:**

Physical appearance: Light cream coloured spherical shaped soft substance declared as Rasogolla sample III in a ordinary plastic container.

Sl. No.	Quality parameters	Result	Microbiological Requirement [Table -2 of App. B of FSS (FSS & FA) reg. 2011 for Edible casein ]
1.	Drained weight % by wt.	22.3	-----
<b>Tests on Drained Rosogolla</b>			
2	Total Soluble Solid % by wt	27.35	-----
3	Added sugar(as sucrose ) % by wt	29.00	-----
4	Total fat % by wt	6.23	-----
5	Total Carbohydrate % by wt	29.00	-----
6	Total Protein % by wt	7.92	-----
7	Casein % by wt	7.19	-----
8	Calcium (mg/100 gm sample)	122.00	-----
9	Starch	Not found	-----
10	Total Starch % by wt	-----	-----
11	Extraneous colouring matter	Not found	-----
12	Moisture % by wt	55.32	-----
<b>Tests on Syrup</b>			
12	pH	6.05	-----
13	Specific Gravity at 22°C	1.1526	-----
14	Sucrose in syrup (% by wt)	34.8	-----

Government of West Bengal  
Office of the Public Analyst (Food & Water)  
West Bengal Public Health Laboratory  
2, Convent Lane, Kolkata – 15  
Phone: - 033-23299225, FAX: - 033-23297289

**Reference:** 540/WBSCST/F/0602/16 Dated 04/11/16  
Test Reports of Rosgolla


<b>Micribiological Analysis (on whole sample)</b>				
16	Total Plate count	(cfu/gm)	13600	NMT50000/g
17	Yeast & Mould	(cfu/gm)	Absent	-----
18	<i>Salmonella sp &amp; Shigella sp</i>	(25gm)	Absent	Absent
19	<i>Escherichia coli</i>	(1gm)	03	Absent
20	<i>Staphylococcus aureus</i>	(1gm)	Absent	LT10
21	Coliform Count	(1gm)	Absent	NMT50


**Nutritional Information ( per 100 gm drained sample ) (approx)**

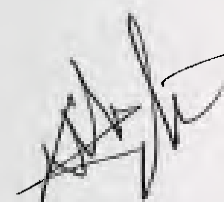
Energy	261 Kcal
Protein	7.32 gms
Fat	6.47 gms
Carbohydrates	41.80 gms

Signed this 24<sup>th</sup> day of November, 2016

Address: West Bengal Public Health Laboratory  
2, Convent Lane, Kolkata -15

Prepared by: 

Checked by: 

  
(Sd/-) Food Analyst.

Public Analyst (Food & Water)  
West Bengal Public Health Laboratory  
Deptt. of Health & F.W.  
Govt. of West Bengal

**N.B.** the results are only applicable for the submitted samples. Endorsement of the products is neither inferred nor implied.

**336/16-17 dt. 24/11/2016**

Government of West Bengal  
West Bengal Public Health Laboratory  
Office of the Public Analyst (Food and Water)  
2, Convent, Lane, Kolkata-15

Memo No. PHL/ 27161

Dated : Kolkata  
01/12/2016

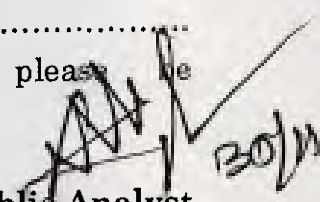
To  
Dr. Mahuya Hom Choudhury  
Scientist-C & Nodal Officer  
Patent information centre  
West Bengal State Council of Science & Technology  
Vigyan Chetana Bhavan, Block-DD, Plot-26/B  
Sector-1, Saltlake, Kolkata- 700064.

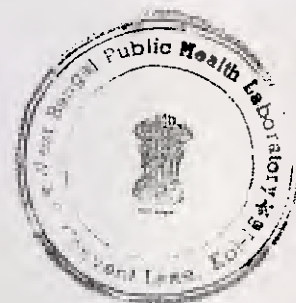
Subject : Test report of Rasogolla.

Reference : Letter / Memo No. 539/WBSCST/F/ Dated 16/09/16 ..... 23/11/16

With reference to Letter / Memo cited above I am to furnish herewith the  
analysis Report No. 361/16-17 dt. 30/11/2016 ..... of .....  
Rasogolla ..... receipt of which may please  
acknowledged.

Encl : As above

  
Public Analyst  
(Food and Water)  
Govt. of West Bengal  
Public Analyst (Food & Water)  
West Bengal Public Health Laboratory  
Deptt. of Health & F. W.  
Govt. of West Bengal



**Reference: 431/WBSCST/F/0602/16 Dated 05/09/16**

**Test Reports of Rosogolla**

**Report No. 361/16-17 dt. 30/11/2016**

Certify that I **Arup Dattagupta** duly appointed as Food Analyst under the provision of the Food Safety & Standard Act 2006 for the State of West Bengal has received one sample of **Banqlar Rasogolla** from **Dr.Mahuya Hom Choudhury, Scientist-C & Nodal Officer, Patent Information Centre**, on 23/11/2016 vide memo 538/WBSCST/F/0602/16 Dated 23/11/16 for analysis .

The result of analysis is as follows:

**Sample Description: Banqlar Rasogolla**

**Sample no.: V**

**Result of Analysis:**

Physical appearance: Light brown spherical shape sponzy substance sent in a plastic container, declared as "Banqlar Rassgolla".

Sl. No.	Quality parameters	Result	Microbiological Requirement [Table -2 of App. B of FSS (FPS & FA) reg. 2011 for Edible caseln ]
1.	Drained weight % by wt.	69.88	----
<b>Tests on Drained Rossgolla</b>			
2	Total Soluble Solid % by wt	27.88	----
3	Added sugar(as sucrose ) % by wt	31.23	----
4	Total fat % by wt	3.53	----
5	Total Carbohydrate % by wt	34.04	----
6	Total Protein % by wt	6.35	----
7	Casein % by wt	5.43	----
8	Calcium (mg/100 gm sample)	108.00	----
9	Starch	Positive	----
10	Total Starch % by wt	2.34	----
11	Extraneous colouring matter	Not found	----
12	Moisture % by wt	55.49	----
<b>Tests on Syrup</b>			
13	pH	5.91	----
14	Specific Gravity at 22°C	1.1623	----
15	Sucrose in syrup (% by wt)	36.80	----

Government of West Bengal  
Office of the Public Analyst (Food & Water)  
West Bengal Public Health Laboratory  
2, Convent Lane, Kolkata - 15  
Phone: - 033-23299225, FAX: - 033-23297289

**Reference: 431/WBSCST/F/0602/16 Dated 05/09/16**

**Test Reports of Rosogolla**


<b>Microbiological Analysis (on whole sample)</b>				
16	Total Plate count	(cfu/gm)	6500	NMT50000/g
17	Yeast & Mould	(cfu/gm)	Absent	
18	<i>Salmonella sp &amp; Shigella sp</i>	(25gm)	23	Absent
19	<i>Escherichia coli</i>	(1gm)	03	Absent
20	<i>Staphylococcus aureus</i>	(1gm)	Absent	LT10
21	Coliform Count	(1gm)	110	NMT50

**Nutritional Information ( per 100 gm drained sample ) (approx)**

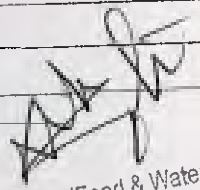
Energy	198.43 Kcal
Protein	6.35 gms
Fat	3.53 gms
Carbohydrates	34.04 gms

Signed this 30<sup>th</sup> day of November, 2016

Address: West Bengal Public Health Laboratory  
2, Convent Lane, Kolkata -15

Prepared by: } 

Checked by: }

  
Public Analyst (Food & Water)  
West Bengal Public Health Laboratory  
Dept. of Health & F. W.  
Govt. of West Bengal

(Sd/-) Food Analyst.

**N.B.** the results are only applicable for the submitted samples. Endorsement of the products is neither inferred nor implied.



# WEST BENGAL STATE COUNCIL OF SCIENCE & TECHNOLOGY

Vigyan Chetana Bhavan, Block – DD, Plot - 26/B, Sector 1, Saltlake, Kolkata – 700064

Email : picwbcsct@gmail.com, website :dstwb-council.gov.in

No. 407/WBSCST/F/0602/16

Date: 24.08.2016

From:  
Parna Chanda, WBCS (Exe.)  
Administrative Officer

To:  
The Head  
Department of Fish Processing  
West Bengal University of Animal and Fishery Science

Sub: Chemical Analysis for G.I registration of Rasogolla

Sir,

As you are aware that Patent Information Centre (PIC) is functioning under West Bengal State Council of Science & Technology (WBSCST), Department of Science & Technology (DST), GoWB. PIC set up under WBSCST being the only nodal centre for handling Intellectual Property Rights (IPR) for West Bengal registered Seven (7) Geographical Indications (G.I) of the state. The registered G.Is are three mangoes of the state viz. Fazli (G.I-113), Lakshmanibhog (G.I-111), Himsagar (G.I-112) , three textile products [Baluchari (G.I-173), Dhaniakhali (G.I-176), Santipore Saree (G.I-138)] and Joynagar Moa (G.I-382). Not only that this Centre has applied for G.I Registration of "Banglar Rasogolla".

As per observation of G.I Registry, we have to send Chemical analysis report to G.I Office Chennai for the Rasogolla samples collected from Orissa/other state. We require Chemical Analysis report of Rasogolla of other state sent herewith for G.I registration of "Banglar Rasogolla" (Sample No. I - IV (A, B, C))

1. Texture Analysis of Rasogolla and Channa
2. Brix meter analysis for Sugar Syrup
3. Sweetness Index
4. Total Soluble Solid
5. Nutritional Composition analysis
6. Test for adulterants (Test for starch additive)
7. Calcium content
8. Specific Gravity
9. Microbial Count (Total Plate Count and sub specis)
10. Drained Weight
11. Casein Content

I would like to request you to send us the analysis report at the earliest. Charge required (if any) may be communicated to us by raising bill to the abovementioned address.

Thanking you,

Yours faithfully,

Parna Chanda

Date:

No. /WBSCST/ F/0602/16

o/c





# WEST BENGAL STATE COUNCIL OF SCIENCE & TECHNOLOGY

Vigyan Chetana Bhavan, Block - DD, Plot - 26/B, Sector 1, Saltlake, Kolkata - 700064

Email : picwbscst@gmail.com, website :dstwb-council.gov.in

No. *Zi*/WBCSST/F/0602/16

Date: 04.11.2016

From:

Dr. Mahuya Hom Choudhury

Scientist-C

&

Nodal Officer

Patent Information Centre

To:

The Head

Department of Fish Processing

West Bengal University of Animal and Fishery Science

Sub: Chemical Analysis for G.I registration of Rasogolla

Ref: Our communication letter no. 407 Dated 24.08.2016

Sir,

With reference to our previous communication, I am directed to send herewith the samples of different shops of West Bengal and other states for G.I Registration of "Banglar Rasogolla".

As per observation of G.I Registry, GoI, we have to send Chemical analysis report to G.I Office Chennai for the Rasogolla samples collected from different shops of West Bengal and other states. The comparative analysis of Banglar Rasogolla with the Rasogolla of other states need to be produced before the G.I registry for Final Registration. I would like to request you to send Chemical Analysis report with a comparative analysis of samples numbered as levelled on sample (I-IV) the following characteristic for Final Registration of "Banglar Rasogolla".

1. Texture Analysis
2. Brix
3. Viscosity

I would like to request you to send us the analysis report at the earliest. Charge required (if any) may be communicated to us by raising bill to the abovementioned address.

Thanking you.

*Dr. S. S. Sanyal*  
*4/11/16*

Yours faithfully,

*MHS*

Mahuya Hom Choudhury



# WEST BENGAL STATE COUNCIL OF SCIENCE & TECHNOLOGY

Vigyan Chetana Bhavan, Block – DD, Plot - 26/B, Sector 1, Saltlake, Kolkata – 700064

Email : picwbscst@gmail.com, website :dstwb-council.gov.in

No. 539 /WBCST/F/0602/16

Date: 23.11.16

From:

**Dr. Mahuya Hom Choudhury**

Scientist-C

&

Nodal Officer

Patent Information Centre

To:

The Head

Department of Fish Processing

West Bengal University of Animal and Fishery Science

Sub: Chemical Analysis for G.I registration of Rasogolla

Ref: Our communication letter no. 541/WBCST/F/0602/16 Dated 04.11.16

Sir,

With reference to our previous communication, I am directed to send herewith the samples of different shops of West Bengal and other states for G.I Registration of "Banglar Rasogolla".

As per observation of G.I Registry, GoI, we have to send Chemical analysis report to G.I Office Chennai for the Rasogolla samples collected from different shops of West Bengal and other states. The comparative analysis of Banglar Rasogolla with the Rasogolla of other states need to be produced before the G.I registry for Final Registration. I would like to request you to send Chemical Analysis report of samples numbered as levelled on sample (I) of the following characteristic for Final Registration of "Banglar Rasogolla".

1. Texture Analysis
2. Brix
3. Viscosity

I would like to request you to send us the analysis report at the earliest. Charge required (if any) may be communicated to us by raising bill to the abovementioned address.

Thanking you,

Yours faithfully,

Mahuya Hom Choudhury

## Report on Texture Analysis of Rasogolla

Sample	Hardness (g)	Springiness	Cohesiveness	Chewiness (g)
I	5045.31 ± 1798.38	2.54±0.52	0.52±0.10	6511.91±2425.15
II	2099.86 ± 895.54	1.45±0.52	0.55±0.15	1458.55±58.32
III	1611.96 ± 419.13	1.74±0.19	0.56±0.21	1491.99±9.68
IV A	689.95 ± 6.37	0.81±0.05	0.78±0.00	436.09±19.59
IV B	527.14 ± 182.20	2.16±1.75	0.84±0.13	854.44±568.43
IV C	168.01 ± 29.63	3.30±0.00	1.09±0.06	600.79±74.94

### Hardness

Hardness is the force necessary to produce a given deformation. Hardness of IV A, B and C Rosogolla samples was found lower than the rest of the Rosogollas I, II and III wherein the values recorded being less than half of sample I, II and III. This suggests better softness in samples IV A, B and C as compared to others.

### Cohesiveness

The cohesiveness is defined as the extent to which Rosogolla may be deformed before it ruptures. The Cohesiveness of IV A, B and C Rosogolla are found to be more than those of I, II and III, the highest recorded in IVC (1.09).

### Springiness

Springiness is the rate and extent to which a deformed material goes back to initial condition after the deforming force is removed (Crville & Szczesniak, 1973). Springiness of experimental samples is non-significantly different.

### Chewiness

The energy required to masticate a solid food product to a state ready for swallowing is defined as chewiness (Szczesniak, 1966; Yang & Taranto, 1982). Chewiness of samples IV A, B and C are much lower within the range of 400g to 850g as compared to samples I, II and III which recorded very high figures of 6511.91g, 1458.55g and 1491.99g respectively. Therefore the energy required to masticate samples IV A, B and C is much lower than the rest suggesting a better chewiness.

8 07 16  
Dr. Supratim Chowdhury  
Assistant Professor, Dept. of F.P.T.  
F.F.Sc. (W.B.U.A.F.S)  
Chakgaria, Kolkata-700094, W.B.

## REPORT ON BRIX OF RASOGOLLA

Date of receipt of sample: 04.11.2016

Sample	Brix
I	38
II	36
III	29
IV	40

*Dr. Sankar*  
17/11/16

Dr. Sankanta Sarkar  
Associate Professor, Dept. of F.P.T.,  
F.F.Sc. (W.B.U.A.F.S.)  
Chakgaria, Kolkata-700094, W.B.

## REPORT ON BRIX OF RASOGOLLA

Date of receipt of sample: 23.11.2016

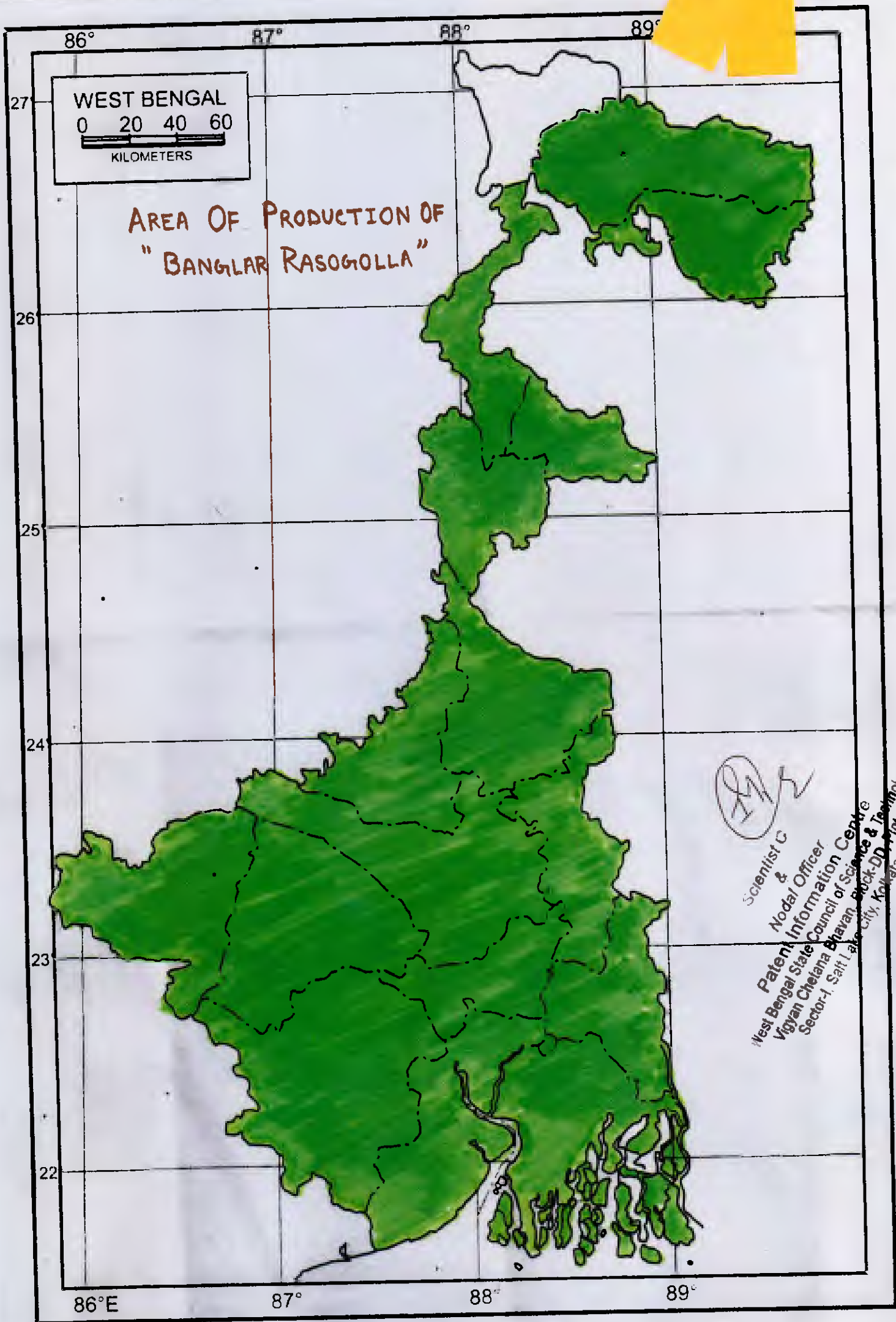
Sample	Brix
I	75.5

*Dr. Supratim Chowdhury*  
23.11.16

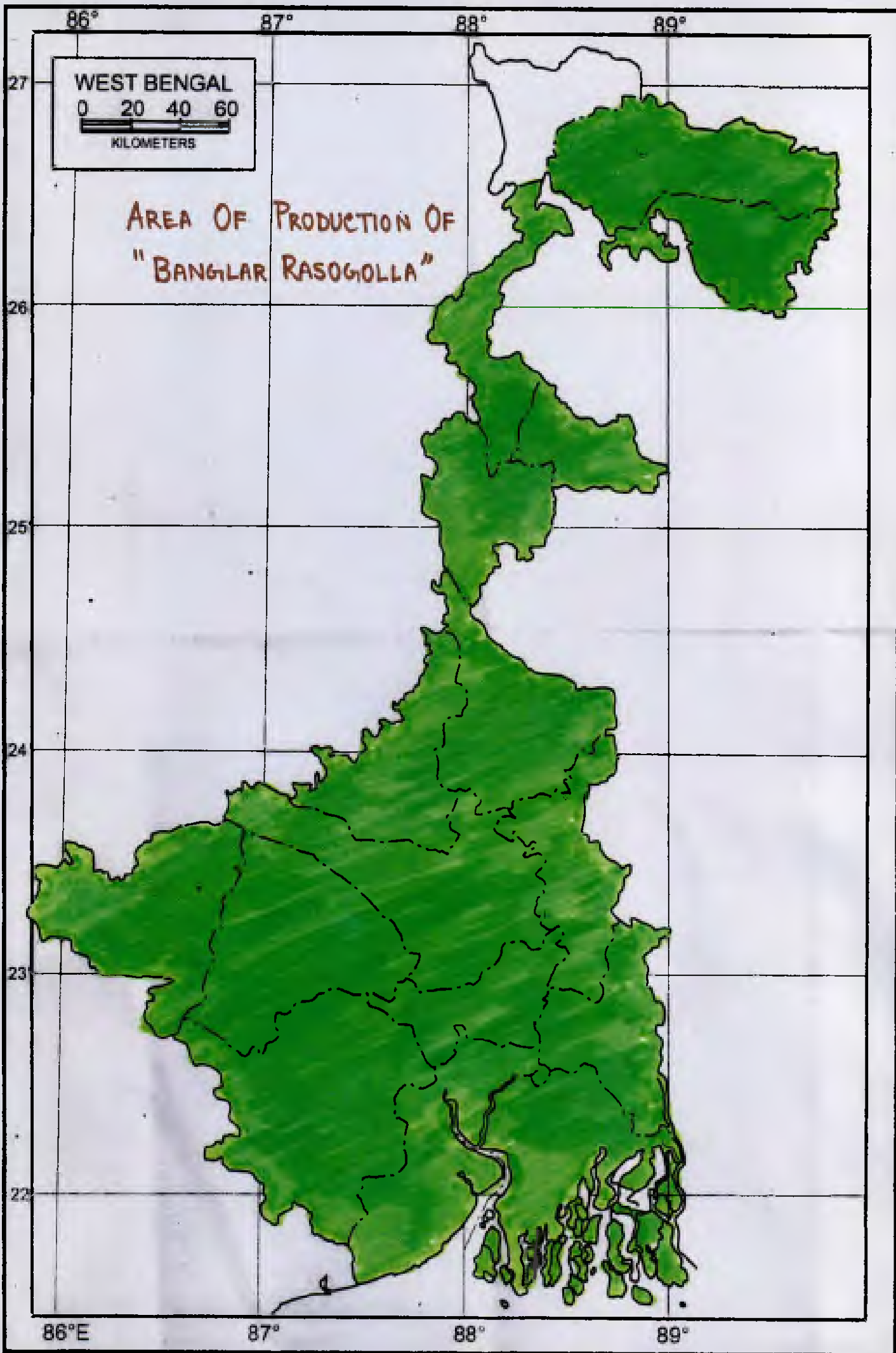
Dr. Supratim Chowdhury  
Assistant Professor, Dept. of F.P.T.,  
F.F.Sc. (W.B.U.A.F.S.)  
Chakgaria, Kolkata-700094, W.B.

*Dr. Sankar*  
25/11/16

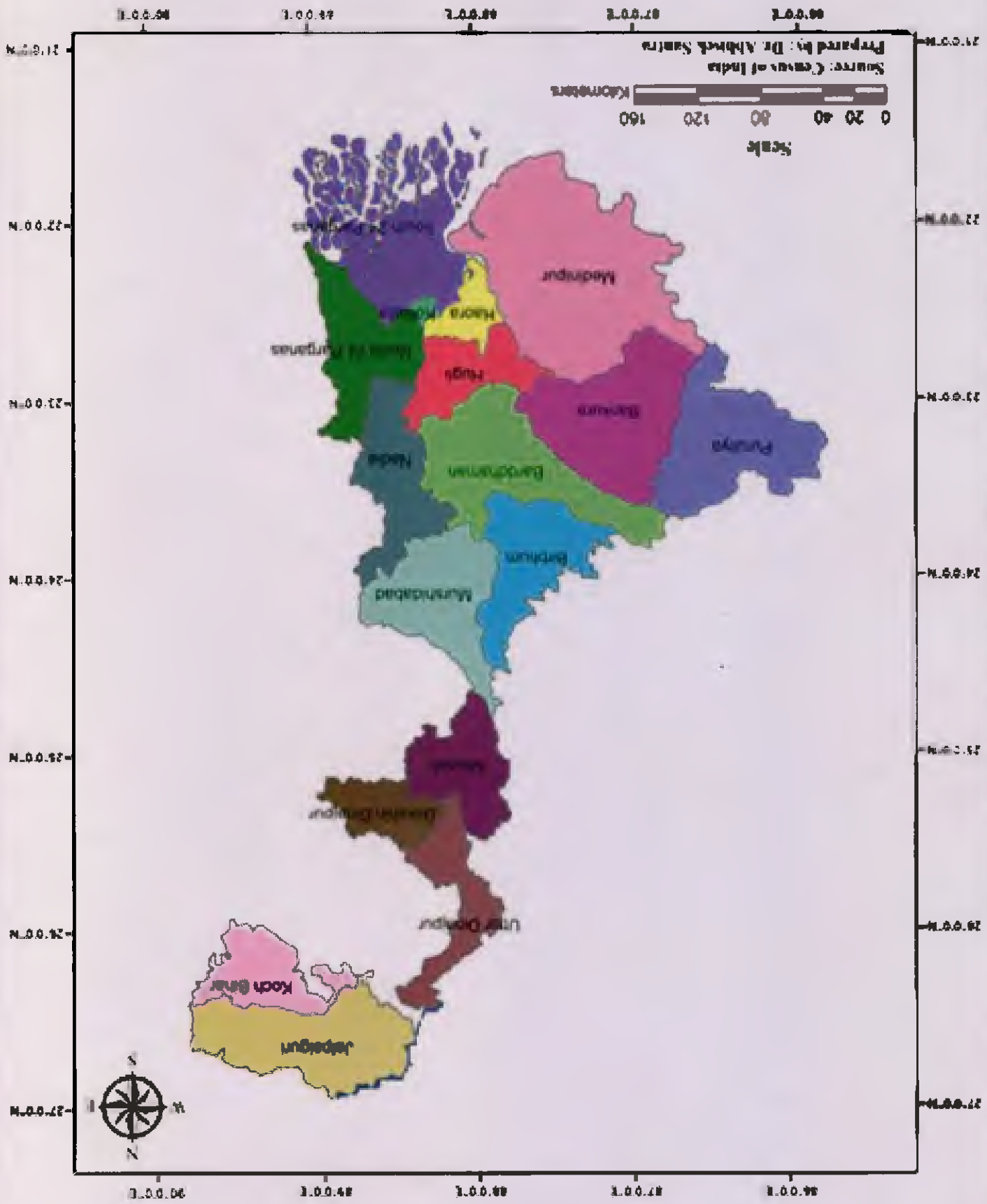
Dr. Sankanta Sarkar  
Associate Professor, Dept. of F.P.T.,  
F.F.Sc. (W.B.U.A.F.S.)  
Chakgaria, Kolkata-700094, W.B.







# Area of Production of Banglar Rasogolla





भारतीय गैर न्यायिक

पचास  
रुपये

रु.50

भारत

FIFTY  
RUPEES

Rs.50

INDIA

INDIA NON JUDICIAL



NOTARY  
6584/2008

पश्चिम बंगाल

पश्चिम बंगाल

WEST BENGAL

BEFORE THE NOTARY PUBLIC  
AT BIDHANNAGAR  
DIST.-NORTH 24 PARGANAS

U 328088

AFFIDAVIT AFFIRMED ON BEHALF OF THE APPLICANT IN COMPLIANCE OF NOTICE ISSUED UNDER RULE 31 OF THE GEOGRAPHICAL INDICATIONS OF GOODS (REGISTRATION AND PROTECTION) RULES 2002 FRAMED UNDER THE GEOGRAPHICAL INDICATIONS OF GOODS (REGISTRATION AND PROTECTION) ACT, 1999

I, Animesh Bhattacharya son of Late Tarapada Bhattacharya by faith Hindu aged 52 years, having office at 2<sup>nd</sup> floor, Mayukh Bhavan, DF Block, Sector-I, Salt Lake City, Kolkata- 700091, residing at OM Apartment, Farthabad, Garia, Kolkata- 700084, West Bengal do hereby solemnly affirm and sincerely state as follows:

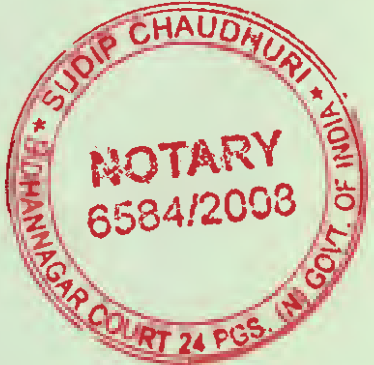
1. I am the Managing Director of West Bengal State Food Processing & Horticulture Development Corporation Limited and I am the applicant seeking registration of "Banglar Rasogolla" as a Geographical Indication in India. Presently I am working as Managing Director, West Bengal State Food Processing & Horticulture Development Corporation Limited from 31<sup>st</sup> August'2015 is under the Department of Food Processing Industries and Horticulture, Government of West Bengal.

  
S. CHAUDHURI  
\* NOTARY \*  
GOVT. OF INDIA  
Regd. No.-5584/08  
Bidhannagar Court  
Dist.-North 24 Pgs.

30 NOV 2016

GOVT. OF INDIA  
Regd. No.-6584/08  
Bidhannagar Court  
Dist.-North 24 Pgs.

30 NOV 2016



//3//

**VERIFICATION**

Verified at Bidhannagar on this the 30<sup>th</sup> day of November'2016 that the contents of paragraph nos. 1,2,3,4, and 5 of this affidavit are true to the best of my knowledge and those made in paragraph 6 are based upon information received from the Commissioner of Food Safety of the Government of West Bengal which I verily believe to be true.

Identified By Me:

*Rajip Mandal*  
ADVOCATE Dt. 30.11.2016.

Signature of Animesh Bhattacharya  
WBCS (Exe.)  
Managing Director  
(W.B. State Food Processing & Horticulture Dev. Corpn. Ltd.)  
(A Govt. of West Bengal Enterprise)

*S. Chaudhuri*  
S. CHAUDHURI  
\* NOTARY \*  
GOVT. OF INDIA  
Regd. No.-6584/08  
Bidhannagar Court  
Dist.-North 24 Pgs.

30 NOV 2016